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COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

VERBATIM RECORD OF THE 384th MEETING

Held at Headquarters, New York,
on Thursday, 10 June 1993, at 10.30 a.m.

Chairman: Mr. MUNTEANU (Romania)
(Vice-Chairman)

- Attendance by non-members of the Committee
- Ways and means of maintaining outer space for peaceful purposes (continued)
- Report of the Scientific and Technical Subcommittee on the work of its thirtieth session
- Implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space

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In the absence of the Chairman, Mr. Munteanu (Romania), Vice-Chairman, took the Chair.

The meeting was called to order at 10.55 a.m.

ATTENDANCE BY NON-MEMBERS OF THE COMMITTEE

The CHAIRMAN: I should like to inform members that I have received notes verbales from the delegations of Bolivia and Cuba in which they request permission to attend the current session of the Committee on the Peaceful Uses of Outer Space as observers. I should therefore like to suggest that, in conformity with past practice, we invite those delegations to attend the current session and to address the Committee as appropriate. This, of course, is without prejudice to further requests of this nature and does not involve any decision by the Committee concerning status. It is a courtesy we customarily extend to delegations.

If there is no objection, we shall proceed accordingly.

It was so decided.

WAYS AND MEANS OF MAINTAINING OUTER SPACE FOR PEACEFUL PURPOSES (continued)

Mr. SAHADE (Argentina) (interpretation from Spanish): With respect to agenda item 4, "Ways and means of maintaining outer space for peaceful purposes", the Argentine delegation believes that, now that the international situation has fundamentally changed, it should be comparatively easy to declare and ensure that outer space should be used exclusively for peaceful purposes. We believe that every country should help achieve this by taking the necessary action. In that connection, Argentina considers that the best contribution it can make is to engage in activities based on international cooperation and on transparency.

(Mr. Sahade, Argentina)

Argentina considers that this position is manifested in three important points: first, that space activities in Argentina are in civilian hands, directly under the presidency; secondly, that the national space plan we are developing must be approved by the Argentine Congress; and thirdly, that there is a major international-ccoperation component in current activities of the National Commission on Space Activities (CONAE) and other projected activities.

It is the intention of CONAE that the cooperation it is developing with other countries should expand in all respects as current initiatives are consolidated.

With respect to this Committee's discussion of this item, my delegation reiterates its belief that our work could benefit from the relevant information that could be provided by the Conference on Disarmament Ad Hoc Committee on the prevention of an arms race in outer space. That information need not be submitted through formal channels. It is striking that two United Nations bodies considering a single subject from two different angles should be unable to exchange information.

Mr. GONZALEZ BUSTOS (Mexico) (interpretation from Spanish): As my delegation stated two days ago in this same forum, we welcome the decision adopted by the Clinton Administration, announced on 13 May by the Pentagon, to suspend the "Star Wars" programme of strategic defence in outer space. That decision will surely contribute to advancing the Committee's goal of reserving outer space for exclusively peaceful purposes and will encourage delegations to redouble their efforts to that end.

Although it has been a perennial priority issue in the Committee, very little has yet been done to devise ways and means to reserve outer space for peaceful purposes. The major space Powers apparently lack the political will to assume such a commitment; this is a matter of concern to the countries of the international community that share a peaceful vocation. Thus, outer space still threatens to become a new arena for an arms race.

My delegation believes that the Committee has the necessary mandate to tackle this important topic in all its aspects. Our mandate is based on General Assembly resolutions 37/83, 38/80, and 47/67. The first of those resolutions requested the then Committee on Disarmament to consider as a matter of priority the question of preventing an arms race in outer space; the second resolution requested the Committee on the Peaceful Uses of Outer Space (COPUOS) to deal with the militarization of outer space as a matter of priority, taking into account the need to coordinate its efforts with COPUOS; the third resolution urged all States, in particular those with major space capabilities, to contribute actively to the goal of preventing an arms race in outer space.

(Mr. Gonzalez Bustos, Mexico)

My delegation therefore endorses the position of the delegations of Brazil, India, Indonesia and others, on the urgent need to establish a communications and coordination link between this Committee including its two subcommittees, and the Conference on Disarmament. The relationship would of course be complementary; it would make possible broad treatment of the subject and avoid duplication of efforts. The idea is not to have COPUOS initiate discussions or negotiations on disarmament but to have each body complement the other's efforts as they seek ways and means, through the adoption of confidence-building measures and the codification of international law governing space activities, to prevent the militarization of outer space.

A few days ago, the Ad Hoc Committee of the Conference on Disarmament on the Prevention of an Arms Race in Outer Space met in Geneva. During that meeting, governmental experts from two developed countries made interesting proposals to increase confidence-building measures. One of those experts also cited the need, through international cooperative efforts, to lay down certain minimal binding norms which, if gradually accepted by States, could eventually regulate space activities. Those statements show how close the objectives of COPUOS and the Ad Hoc Committee of the Conference on Disarmament are. We are convinced that a close link between the two organizations would allow us to maximize efforts and eliminate duplication.

The profound changes in the international system, including the end of the cold war, brought the hope that the arms race in outer space would come to an end. However, the reluctance of some delegations to accept a link between COPUOS and the Conference on Disarmament in the treatment of this subject

(Mr. Gonzalez Bustos, Mexico)

indicates that the threat still exists and cannot be ignored. We therefore appeal to delegations to accept this link of cooperation and thus enable us to make progress on this priority issue.

The day before yesterday, my delegation urged that we tackle this item constructively and consider the desirability of examining the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, with a view to amending article IV so as to prohibit the placement in orbit of any type of weapon, not just nuclear weapons and other weapons of mass destruction, which is the present rule. We believe that this proposal remains valid and deserves full consideration.

Mr. HODGKINS (United States of America): My delegation would like to comment on the topic of ways and means of maintaining outer space for peaceful purposes. In his earlier remarks opening the session, Ambassador Hohenfellner sounded a note of optimism for the future work of the Committee. We share that optimism and firmly believe that present conditions are such that we can build a solid foundation for enhancing international cooperation in the exploration of outer space.

In the first instance, I wish to recall that my delegation and others have put forward detailed proposals for improving the organization of work in the Committee on the Peaceful Uses of Outer Space (COPUOS) and its subcommittees. Indeed, the Committee has concluded that strengthening international cooperation in the peaceful exploration and use of outer space implies the need for the Committee itself to improve whenever necessary the methods and forms of its work. We have always taken this injunction seriously. That is why, in taking stock of what has been accomplished over the past decade, we are gratified to see that many of these proposals have in

(Mr. Hodgkins, United States)

fact been adopted by he Committee. Of particular note has been the productive discussion in the Scientific and Technical Subcommittee, in whose work in recent years space scientists and experts have increasingly played a central role. Of course, as we noted earlier, the activities undertaken for the International Space Year are indicative of this positive trend. On the other hand, we are convinced that more can be done on the question of working methods, particularly in the Legal Subcommittee. We have the impression tht there now is a willingness on the part of all member States to continue seeking those reforms which will make the Committee a more effective and efficient body in the United Nations system.

Another promising sign for the future is the potential for regional cooperation. In April of this year, my Government participated actively in the Second Space Conference of the Americas. I should like to extend my Governments congratulations to the Government of Chile for organizing the Conference, which brought together government policy makers and space experts to explore the propects for regional cooperation. We were greatly impressed with the results and are pleased that the Committee was able to lend support and encouragement to the Conference. The Conference was certainly an important advancement in regional cooperation, an area that COPUOS has been advocating for over a decade, beginning with the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 82).

(Mr. Hodgkins, United States)

There is no doubt that the use of space technology to solve problems on Earth must be considered in a global perspective, particularly as related to the protection of the world's oceans and environment. But regional cooperation holds great promise; perhaps we should dedicate our efforts under this agenda item to exploring how the Committee could use its resources and expertise to take full advantage of the potential for regional cooperation to meet specific regional needs.

Finally, I should like to take a moment to remind the Committee of a very important milestone that has been reached: this year marks the thirty-fifth anniversary of resolution 1348 (XIII), submitted by the United States and 19 other States, establishing the Ad Hoc Committee on the Peaceful Uses of Outer Space. The Ad Hoc Committee was established in 1958 and made permanent in 1959. That resolution clearly established a separation between disarmament, which would be taken up in other United Nations forums, and international cooperation in the peaceful uses of outer space, which would be addressed in the Committee on the Peaceful Uses of Outer Space. The wisdom of that decision is apparent when we look at the accomplishments of this Committee in increasing international understanding of the potential uses of outer space for science and engineering, communications, transportation, meteorology, environmental monitoring and medicine.

REPORT OF THE SCIENTIFIC AND TECHNICAL SUBCOMMITTEE ON THE WORK OF ITS THIRTIETH SESSION (A/AC.105/543)

IMPLEMENTATION OF THE RECOMMENDATIONS OF THE SECOND UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE

The CHAIRMAN: I now call on the Expert on Space Applications, Mr. Abiodun.

Mr. ABIODUN (United Nations Expert on Space Applications): Mr. Chairman, I am grateful to you for giving me this opportunity to address the members of this Committee on the activities of the United Nations Programme on Space Applications during the Committee's consideration of its agenda items 5 and 7 at its current session. My statement will focus on the activities and direction of the Programme during the period 1992 through 1994. It will also highlight the steps taken to date by the United Nations to establish Centres for Space Science and Technology Education at the regional level, and it will also provide a concluding remark on the participation of the United Nations in International Space Year (ISY). Details of these activities are contained in my current report, document A/AC.105/533, which is now before the Committee.

On International Space Year, I have briefed the Committee on the series of activities we developed to carry out the mandate of the United Nations which directed that the training and educational capabilities of the United Nations Programme on Space Applications should be utilized to bring about a meaningful role for the United Nations. I am pleased to present to the Committee document A/AC.105/445/Add.9, the concluding report on United Nations participation in ISY.

(Mr. Abiodun)

Most of the activities planned for ISY have been successfully completed; the only outstanding one is the United Nations Regional Conference on Space Technology for Sustainable Development in Africa which is scheduled to be held in Dakar, Senegal in October this year. I will provide further details on this Conference later in my statement.

One of the major reports on United Nations participation in ISY is the one entitled "Planetarium - A Challenge for Educators", which is now before the Committee. The United Nations owes much gratitude to the international planetarium community for the preparation of this document. This same document has been translated and published in Japanese. It is also being translated into Spanish for general distribution among the planetaria in Mexico and the rest of Latin America.

The activity on "Live Observation of Bright Artificial Satellites" was accomplished with the cooperation of Rockwell Space Operation Company in Houston, Texas, which provided precise advance predictions of the sightings of such space vehicles as the Shuttle, the Mir space station, and the Hubble Space Telescope. During the year, 36 planetaria and similar educational institutions in 27 countries participated in this educational activity.

We also successfully organized a global essay contest on the subject "My Vision of Outer Space and the Promise It Holds for My Country and Mankind". Ten of these essays were judged to be the most meritorious by an international board of editors that was established by the United Nations for this purpose. These essays, I am told, will be available in published form before the conclusion of the Committee's session.

(Mr. Abiodun)

With reference to long-term fellowships, in 1992 the Programme received 17 long-term fellowship offers; these included offers from the Governments of Brazil and China, and the European Space Agency (ESA). These fellowship awards are for studies in remote sensing technology, with emphasis on research, applications and information systems; geodesy, photogrammetry, satellite meteorology, communications systems and space antennas and propagation. Details on all the fellowships as well as the identification of the beneficiaries are shown in annex II of my current report.

The training courses, workshops and conferences organized by the Programme in 1992 are fully described in paragraphs 23 to 41, on pages 9 to 14 of my current report. These activities were sponsored and hosted by the Governments of Colombia, Costa Rica, Ecuador, Germany, Republic of Korea, Sweden and the United States of America, and by the Regional Centre for Services in Surveying, Mapping and Remote Sensing in Nairobi, Kenya. The Government of Japan sponsored the activity of the Programme in Ecuador. The European Space Agency co-sponsored the training course in Nairobi, and cooperated with the United Nations and the Planetary Society to co-sponsor the basic space science workshop in Costa Rica and Colombia. The International Society for Photogrammetry and Remote Sensing (ISPRS) co-sponsored the workshop on remote sensing data analysis methods and applications held on 6 and 7 August 1992 in Washington, D.C., while the International Astronautical Federation, the Committee on Space Research and the American Institute of Aeronautics and Astronautics co-sponsored the "Symposium on Space Technology in the Developing Countries - Making it Happen" in Washington, D.C., from 28 to 30 August 1992, during the World Space Congress. The proceedings of the United Nations/ISPRS workshop, document A/AC.105/545, is now before the Committee.

(Mr. Abiodun)

The 1993 schedule of training courses, workshops, conferences and one symposium is shown in paragraph 42 (a) to (j) of my report, document A/AC.105/533, as well as in a tabular form in annex I of that same report.

As of today, four of these activities have been completed: at the ESA establishment in Frascati, Italy; at Stockholm University and the Swedish Space Corporation Satellitbild in Kiruna, Sweden; at the Eugenides Foundation in Greece; and in Bandung, Indonesia.

In Frascati, Italy, 24 participants from 19 francophone African countries and three regional centres took part in the United Nations/ESA training course on applications of remote sensing data. The course focused on providing practical training in various aspects of passive and active microwave remote sensing, including data from the ESA remote sensing satellite ERS-1.

In Sweden, 26 participants from Africa, Asia, Latin America and the Middle East took part in the third United Nations/Sweden training course on remote sensing education for educators. This course focused on providing remote sensing education, specifically to university educators. This course series has been very successful right from its inception in 1990. Indeed, the Government of Sweden has indicated its interest in sponsoring and hosting it annually.

(Mr. Abiodun)

The Athens workshop, held from 10 to 12 May 1993, was attended by 47 participants from 22 countries. The workshop evaluated the merits and problems associated with tele-education and personal communication. It cautioned against the invertment of scarce resources in mobile communication at the expense of fixed satellite communications services, particularly in the developing countries, since specific infrastructure for this new communication mode is still undergoing rapid and dynamic evolution. Caution was also given on investment in technologies that are searching for users. On request, the United Nations Programme on Space Applications agreed to develop a booklet that will focus on all the aspects of tele-education, including the logistics of developing such a programme in a given country. Such a booklet should be very useful, particularly for those countries that intend to develop such a programme. The workshop called on Member States of the region to guard against the proliferation of national communication satellites in the region, a situation that could lead to frequency interference. It also called on the Governments of the region to devise collectively the necessary mechanism that would militate against such an occurrence.

The Conference in Bandung, Indonesia, held from 17 to 21 May 1993, was attended by 179 participants from 18 countries. The Conference concluded that Member States should give the highest priority to the development of human resources and necessary infrastructure within their own borders so that they can effectively make use of space technology in their social and economic development programmes. The Centre for Space Science and Technology Education being planned by the United Nations is seen as one of the major vehicles for achieving this objective. The Conference noted that space activities are very expensive and that economic realities demand regional cooperation. The Conference also noted that there is a need for countries within the region to

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share their expertise and resources. The Bandung Conference identified a number of programmes that should be of primary interest to the region, including the Geoscope developed by Canada, the installation in every country of the region of a functional high-resolution picture transmission station, the joint establishment and operation of a telescope with a diameter greater than 4 metres for the benefit of the region, the initiation of a major atmospheric-science programme in each country, and the development of a network which could facilitate the exchange of information among professionals and practitioners in the field of space science and technology in the region. The Conference agreed to meet on a regular basis under the auspices of the United Nations and requested the countries of the region to offer to host such conferences.

In October this year the United Nations Regional Conference on Space Technology for Sustainable Development in Africa will be held in Dakar, Senegal, and will be attended by individuals at the executive level in their own countries and by senior scientists and managers from the region. The youth of the region will also be invited to participate in this Conference.

The objectives of the Dakar Conference are to evaluate environmental and natural-resource information and management needs in Africa, examine current and future Earth observation systems and their potentials and evolve plans that will enable African countries to meet the requirements of future programmes that are associated with social and economic development and the safeguarding of the region's environment. The roles of communications technology in these efforts, including, in particular, those of the Regional African Satellite Communication System (RASCOM), will be addressed.

The remaining training course, workshops and conference planned for 1993 will be held in Mexico, Nigeria, Nepal and Syria and will focus on disaster

(Mr. Abiodun)

mitigation, basic space science, remote-sensing applications and the use of space techniques for monitoring desert environment. The schedule of training courses, workshops and the symposium planned for 1994 is shown in paragraph 43 (a) through (j) of my current report.

In the area of technical advisory services, the Programme assisted the Federal Government of Nigeria in organizing and conducting a National Seminar on Space Science and Technology, with special emphasis on "Earth viewing from space: Potential benefits for sustainable development in Nigeria". This seminar was held in Lagos on 12 November 1992.

Similarly, the Programme assisted the Government of the Islamic Republic of Iran in organizing and conducting a National Seminar on Remote Sensing of Environment and Space Applications, which was held in Tehran, from 8 to 13 December 1992.

The two events held in Iran and Nigeria were conducted by the two Governments in commemoration of International Space Year.

At the request of the Government of Chile, the Programme on Space Applications assisted in the overall planning and organization of the Second Space Conference of the Americas. At the request of that Government, the Office for Outer Space Affairs also prepared a document which consisted of the submissions of Member States in Latin America and the Caribbean region on those applications that are in harmony with the concept of sustainable development. This document also highlighted the space-related activities that the United Nations system is undertaking to meet the goals of Agenda 21 in Latin America and the Caribbean.

As members of this Committee are aware, the Second Space Conference of the Americas was very successful in establishing the groundwork and mechanisms that could enhance cooperation in space science and technology in the region.

(Mr. Abiodun)

In its Santiago Declaration, the Conference established a pro-tempore secretariat to follow-up and give continuity to the outcome of the Conference. Through the Programme on Space Applications, the Office for Outer Space Affairs stands ready to assist this secretariat in carrying out its mission.

One of the major outcomes of the United Nations/Korea Workshop on Satellite Communications for Development, held in Seoul last November, was the agreement to establish an Asia-Pacific Satellite Communications Conference (APSCC). In their view, such a Conference is vital for the coordination and implementation of satellite-communication programmes to meet the growing demands for such services in the Pacific region. At the request of the workshop, the Office for Outer Space Affairs has communicated this decision to the Governments of the Asia-Pacific region for their endorsement as well as to the International Telecommunication Union (ITU). According to the ITU, such a Conference could be a useful vehicle for continuing exchange of information on proposals and plans for satellite communications in the Region, and it would be pleased to cooperate in this initiative in appropriate ways. As of 1 May this year, 20 countries of the region have given written or verbal approval to the establishment of the Asia-Pacific Satellite Communications Conference.

The Ad Hoc Committee established during the workshop in Korea last November will soon convene to draft the by-laws and procedures of this Conference and establish an agency for follow-up actions. The Government of Korea has offered to host the APSCC secretariat and provide the necessary funding support for the secretariat's operations.

In Ecuador, as I indicated to the Committee last year, the United Nations is working very closely, on request, with the Government to promote

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cooperation between Ecuador and the Governments of all the countries that are within the coverage area of the Cotopaxi Ground Station. Such cooperation should witness an agreement with all these countries and ensure a continuous operation of Cotopaxi Station and the acquisition and delivery of data to these countries.

Following the request of the Government of Ecuador to the United Nations to organize a technical assistance programme to address the above issues, the United Nations, through its Programme on Space Applications, invited satellite operators, data distributors and ground-receiving-station builders to New York on 25 and 26 February this year for consultations. Thereafter, the same group, including the representative of the United Nations, undertook a technical mission in March of this year to four of the countries - Colombia, Ecuador, Peru and Venezuela - that are within the coverage area of the Cotopaxi Ground Receiving Station. The Caribbean Community (CARICOM) represented the Caribbean region and met with the mission in Caracas. The objective of this mission was to assess the level of interest and expected commitments of Member States within the coverage area of the Cotopaxi Ground Receiving Station in order to determine the availability of support for the Station's continuous operation as a regional entity. The report of the evaluation mission has just been finalized and forwarded to all the countries visited and all the entities that participated in the mission.

(Mr. Abiodun)

According to this report, the Government of Ecuador confirmed to the mission its willingness to transfer full control of the Cotopaxi Station to a multi-national entity with private-enterprise characteristics within the framework of the mandate of the Andean Presidential Council. The mission noted that it is particularly urgent to decide on the upgrade of the Cotopaxi Station's antenna so that it will receive LANDSAT-6, since LANDSAT-5 will stop its transmissions by August this year.

The mission concluded that the atmosphere in which a regional entity could be established to operate all aspects of the Cotopaxi Ground Receiving Station is very positive at this time. The mission recommended that the Governments of the Andean Presidential Council should take further steps to ensure that a Working Group is established as soon as possible to strengthen the use of data from the Station through national or regional projects; to determine and advise the Governments of the region on the necessary technical upgrades to the Cotopaxi Station; and to undertake any other short- and mid-term actions necessary to guarantee the continuous operation of the Station and the maintenance of a regional data archive.

In the area of space information, the directory on "Education, Training, Research and Fellowship Opportunities in Space Science and Technology and its Applications" is being updated and will be reissued this year. The directory on "Information Systems on Space Science and Technology" has also been updated and has been reissued as document A/AC.105/517. The fourth publication in the series of selected papers on remote sensing and satellite communications from the activities of the Programme conducted in 1992 has been issued and is now before representatives as document A/AC.105/532.

(Mr. Abiodun)

With reference to the promotion of greater cooperation in space science and technology, most of the activities already described in this statement have clearly advanced regional cooperation in space science and technology throughout the world. Among these are the Workshop on Basic Space Science organized in Costa Rica and Colombia in November of last year; the Workshop on Space Communications for Development held in Athens in May this year; the Regional Conference on Space Science Technology for Sustainable Development organized in Bandung in May this year; the Regional Conference on Space Technology for Sustainable Development in Africa, to be held in October this year in Dakar, Senegal; the planned Asia-Pacific Satellite Communications Conference; and the Programme to revitalize the Cotopaxi Ground Receiving Station that I have just described.

In addition, the association of the Programme with intergovernmental organizations such as the European Space Agency and INMARSAT; United Nations agencies - the International Telecommunication Union (ITU), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Meteorological Organization (WMO) and United Nations Environment Programme (UNEP); and with a number of non-governmental organizations - the International Astronautical Federation (IAF), the International Society for Photogrammetry and Remote Sensing, the Committee on Space Research and the Planetary Society - all are advancing greater cooperation between industrialized and developing countries, as well as among the developing countries.

(Mr. Abiodun)

The initiative of the United Nations to establish the Centres for Space Science and Technology Education will also reinforce regional cooperation, particularly among the developing countries.

However, carrying out the activities I have just described would not have been possible without the members' support and that of their respective Governments, and without members persuading their respective capitals to make the necessary resources available to us. Accordingly, I have summarized in paragraph 54, pages 19 and 20 of my current report (A/AC.105/533), the support for the activities of the Programme received in 1992 and 1993. Specifically, the Programme received support from the following Member States and international and regional organizations and entities: Austria, Brazil, Canada, Colombia, Costa Rica, Ecuador, China, France, Germany, Greece, Italy, Japan, the Republic of Korea, Pakistan, Spain, Sweden and the United States of America; as well as the European Space Agency (ESA), the Committee on Space Research (COSPAR), the International Astronautical Federation (IAF), the American Institute of Aeronautics and Astronautics (AIAA), FAO, ITU, INMARSAT, the Planetary Society and the Regional Centre for Services in Surveying, Mapping and Remote Sensing (RCSSMRS) in Nairobi, Kenya.

I am also pleased to report that the Governments of Austria, China, Greece and Pakistan, as well as ESA, made voluntary cash contributions in the amount of $20,000, $30,000, $7,000, $15,000 and $50,000, respectively, in support of the 1992 activities of the Programme. I am equally pleased to inform members that ESA and the Government of Pakistan already made voluntary cash contributions of $85,000 - for four activities - and $15,000, respectively, in support of the 1993 activities of the Programme. I wish to take this opportunity to express the appreciation and gratitude of the

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United Nations, and my own personal thanks, for the aforementioned cooperation and genuine support of Member States and entities for their confidence in the Programme and for the support they are offering us.

It is also gratifying to note that over the years, the Committee has recognized the inadequacy of the financial resources made available to the Programme on Space Applications under the regular budget of the United Nations. Indeed, and on behalf of the Programme, I am grateful to this Committee for its recommendation to the Special Political Committee, which, during the last session of the General Assembly, noted the limited budgetary allocations for the Programme on Space Applications for the implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 82) and subsequently requested the General Assembly, through the Fifth Committee, to make an adequate allocation for the Programme. We look forward to the approval of this request at the earliest opportunity in order that the Programme could fully carry out its mandates to Member States.

I wish to express the gratitude of the United Nations to you all and to the countries you so ably represented here, as well as to the regional and international organizations, the United Nations agencies, the regional Economic Commissions and many dedicated experts and individuals around the world for assisting and cooperating with the Programme in achieving its objectives.

My work here in New York and around the world is made easier by the support and collaboration of the people that work with me on a day-to-day basis, individuals who continue to give their best to the Programme on Space

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Applications and the cause for which it stands. In this connection, I wish to offer my profound gratitude to all my colleagues in the Space Applications Section. I also wish to thank Mr. Jasentuliyana, Chief of the Office for Outer Space Affairs, and other colleagues in the Office, for their support and cooperation.

As members will recollect, one of the elements of the mandate assigned to the Programme in 1992 was that it should focus primarily on developing indigenous capability at the local level. In dealing with this subject, we must consider a number of aspects; one is the youth of the world. In this connection, I should like to begin by saying that in general, human activities are guided by, and do benefit from, experience. Through the essay contests we organized in commemoration of International Space Year, we came to the conclusion that our efforts to develop indigenous capability in space science and technology at the local level, particularly in the developing countries, should not be limited to the enhancement of the knowledge and skills of university educators and research and application scientists, but should also give recognition to the aspirations of the youth of the world to be part and parcel of this new frontier. Indeed, this frontier is theirs to shape and mould as the years go by. Their involvement at the formative stages of their lives will adequately prepare them to face the challenges and the opportunities that lie ahead in this field.

(Mr. Abiodun)

I experienced the aspiration and yearning of the youth of the world in Bandung, Indonesia, three weeks ago, during the United Nations/Indonesia Regional Conference on Space Science and Technology for Sustainable Development. At that time we organized an evening event that brought four experts to address over 250 students from Indonesian high schools and universities. These experts gave stimulating presentations on the following space-related topics: the United Nations Committee on the Peaceful Uses of Outer Space and its legal work, by Mr. Priyatna Abdurrasyid of Indonesia; space science and human society, by Professor Syuzo Isobe of Japan; the role of planetariums in the development of human resources in space science and technology, by Professor Mazlan Othman of Malaysia; and space transportation systems, past, present and future, by Professor Peter Bainum of the United States. The questions the students addressed to these lecturers were challenging, well-thought-out and relevant.

We should respond to the yearnings of the youth of the world and open to them the windows of opportunity in this new frontier. Such a yearning is reflected in the statement of one of the essayists in the contests, when he wrote

> "... I find it hard to believe that the constraints of relativity will be irrevocable shackles, chaining us to our own solar neighbourhood. We will find a way to touch the stars, if only because God would not be so cruel as to put such a wondrous universe out there and then leave it for ever beyond our reach."

The youth of the world who contributed to the essay contests share the belief that space exploration will enhance human survival here on Earth. They

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all subscribe to "The idea that ... (space) hold(s) the solution to many national, global, social and economic problems ..."

The participation of the United Nations in ISY has sparked the imagination of the youth of the world, stimulated their interest in space science and technology and enhanced their appreciation and knowledge of its roles in ensuring the safety of our planet Earth for this and future generations.

The Programme on Space Applications is currently consulting with the Education Division of the National Aeronautics and Space Administration (NASA), in Washington, D.C., and will do the same with other appropriate entities around the world on how to provide appropriate space-related education to the youth of the world, in their formative years, particularly through their elementary and secondary school programmes. We are also continuing our cooperation with the International Institute for Aerospace Survey and Earth Sciences (ITC) in Enschede, the Netherlands, to expose decision-makers in the developing countries to the opportunities inherent in, and benefits of, outer space exploration.

I should now like to brief the Committee on the progress to date in our efforts to establish centres for space science and technology education around the world. In this connection, we have prepared document A/AC.105/534, which is now before the Committee, entitled "Centres for Space Science and Technology Education: ... updated project document". It describes in detail the main elements of the Centres and the steps taken to date to establish them. The United Nations is also using the 1993 regional conferences and workshop, being organized under the auspices of the Programme, to elaborate on the roles of Member States and their related institutions in ensuring the viability of these Centres.

(Mr. Abiodun)

The primary goal of the United Nations initiative to establish the regional centres for space science and technology education in the developing countries is to enhance the academic and professional capabilities as well as the technical infrastructure, in space science and technology, in the institutions in each region. Through such an effort, these countries should be able to strengthen those capabilities that could contribute to sustainable development at the local level, including social and economic development programmes. These centres will be developed in such a manner as will ensure their long-term viability and orderly growth.

The United Nations is fully committed to achieving the objectives of these centres in each region, and plans to utilize the capabilities of each of the institutions that have been proposed as host for the centres. In most cases, such a plan will require the establishment of network relationships between these institutions, with each institution contributing to the development of knowledge and skills in those disciplines in which it has achieved a degree of excellence.

In western Asia the United Nations plans to carry out an evaluation mission this year to Jordan, Syria and the United Arab Emirates in order to determine the institutional, infrastructural and funding support being offered for the centre, and the framework within which the centre will remain viable in the region.

In Asia and the Pacific region the United Nations will very shortly carry out an evaluation mission to Iran as part of the next phase of establishing a regional centre for space science and technology education in that country for the benefit of the 11 member States of the Economic Cooperation Organization.

(Mr. Abiodun)

Later this year, the United Nations will also carry out an evaluation mission to China, India, Indonesia, Pakistan, Thailand and Malaysia in order to identify areas of needs in the region, the capabilities of each of the countries and how the least developed countries in the region can be assisted within the framework of the centre or centres to be established in the region.

The viability of these centres and the resources being offered for their operation will also be assessed during these missions.

In Africa the United Nations organized an evaluation mission to Ghana, Kenya, Morocco, Nigeria, Senegal and Zimbabwe from 29 March to 9 April this year. The mission was carried out in two segments - English and French. Representatives of the Governments of France and Germany participated and assisted in this evaluation mission. The report of this mission is now under preparation.

In Latin America and the Caribbean, under the auspices of the Programme, an evaluation mission was conducted last year. This mission was undertaken to evaluate the degree to which the institutional, infrastructural and funding support of each Government that has offered to host the centre in Latin America - Argentina, Brazil, Chile and Mexico - would meet the requirements of the centre, including its long-term sustainability. Representatives of the Governments of Canada and Spain participated and assisted in this evaluation mission. The United Nations has accepted the report of the evaluation mission to Latin America and has also communicated the report of this mission to all the countries the mission visited in Latin America, to the Caribbean Community (CARICOM) and to Canada and Spain.

The United Nations has taken note of that mission report and the additional input by the potential host countries. The United Nations has also

(Mr. Abiodun)

taken note of the combination of support necessary to establish a sustainable space education programme in Latin America and the Caribbean, including the potential support of the donor countries, with which we are currently negotiating.

Given the many excellent capabilities in the various institutions in Latin America, and the different branches of space science and technology that could benefit the region, the mission's report observed that a network arrangement might be most desirable. This approach will enable all the viable institutions in the potential host countries to contribute to the centre's programme.

On the basis of this report and input from Member States, the United Nations recently presented the location arrangement for the Latin America and the Caribbean centre for space science and technology education to all the countries that have offered to host the centre. This arrangement is now being studied at the capitals of those countries. Very shortly the United Nations will convene a high-level meeting of representatives of the Governments concerned in order to define all the necessary arrangements, negotiate and draft the necessary agreements and take steps to establish the centre's governing board.

Through its Programme on Space Applications, the United Nations is also currently consulting with all the potential host countries of the centre in the region, and with Canada and Spain and other donor countries, in order to ensure the success of this centre in Latin America.

(Mr. Abiodun)

In conclusion, I would like to state that we are very encouraged by the positive response of a number of Member States and of the international community to the establishment of these Centres. We anticipate the establishment of at least two of them in 1993. We are confident that these Centres will fill the urgent need for developing indigenous capability at the local level through an intensive education programme for educators and research and application scientists, particularly in the developing countries.

On behalf of the United Nations, I wish to take this opportunity to urge you, the members of the Committee, carefully to study document A/AC.105/534, the updated Centre document which is now before you, and kindly to convey to the authorities back home the importance and merits of these Centres. Your support is invaluable; it is indispensable, and we need to hear from you and from your Governments at the earliest opportunity. I am personally available at your request, either here in New York City or in your own capitals, to provide further details as well as to respond to any questions on these Centres in order to assist your Governments to make the necessary decisions in favour of these Centres.

Mr. VISWANATHAN (India): At the outset, our delegation would like to express its satisfaction at the work carried out by the Scientific and Technical Subcommittee at its thirtieth session. We wish also to make some remarks on the agenda item relating to the implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 82).

We note that during its thirtieth session the Scientific and Technical Subcommittee dealt with an extensive range of subjects. During the session, members of the Subcommittee had the benefit of several interesting

(Mr. Viswanathan, India)

presentations on the special theme, "Space-based communication". We would like to convey our appreciation and thanks to the International Astronautical Federation (IAF) and the Committee on Space Research (COSPAR) for arranging the symposium. We note also that the special theme chosen for the 1994 session of the Scientific and Technical Subcommittee is "Space applications for disaster prevention, warning, mitigation and relief". We consider that subject to be very important for many countries, in particular for developing States.

We further note that this year the Subcommittee considered an extensive range of activities carried out under the United Nations Programme on Space Applications. We would like to congratulate the Expert on Space Applications and the Office for Outer Space Affairs on their excellent work carried out despite severe constraints in terms of financial and other resources. Particularly, the various activities undertaken by the United Nations in connection with International Space Year were commendable.

At this juncture, we would like to stress the importance of considering the essential role the Committee could play in promoting the recommendations of the United Nations Conference on Environment and Development, held at Rio de Janeiro last June. Our delegation would be pleased to support the efforts of the Committee in this regard.

We would also like to mention in this connection that data from the Indian Remote Sensing Satellites (IRS) will be available for the benefit of the international community on a continuing basis. The wide-field sensor data available from IRS-1C will combine the advantages of higher resolution with good repetitivity, and could play a very useful role in the global monitoring of vegetation.

(Mr. Viswanathan, India)

One of the important initiatives being pursued by the Committee and the United Nations Secretariat is the development of regional Centres for Space Science and Technology Education in developing countries. We are happy to note the progress made so far and reiterate our support for the speedy implementation of this programme.

Turning to the subject of nuclear power sources, we are happy to note that in pursuance of paragraph 8 of General Assembly resolution 47/67, the subject of the use of nuclear power sources in outer space, was dealt with in the Subcommittee through the reconvening of its Working Group. We convey our appreciation to member delegations that have submitted working papers under this agenda item. These working papers do indeed enrich our discussions relating to the question of the early review and revision of the Principles that have been adopted, and also on aspects related to the collision of space objects carrying nuclear power sources with space debris. We support continuing deliberations through reconvening the Working Group so that we can make further progress.

We would also like to take this opportunity to draw the Committee's attention to the Subcommittee's request that it consider whether the question of space debris should be included on the Subcommittee's agenda for next session. Our delegation strongly supports its inclusion and appeals to members of the Committee to find consensus on this issue during the present session.

I turn now to the agenda item "Implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space". We consider that the various recommendations arrived at by the Working Group of the Whole are pertinent to making speedier progress. In that

(Mr. Viswanathan, India)

connection we support the Committee reiterating its appeal for increasing assistance and for the allocation of additional financial resources. As an important step towards exploring increased international cooperation and evolving fitting follow-on measures to the spirit and activities of International Space Year, we draw the Committee's attention to the interest expressed by several delegations in organizing a third UNISPACE conference, preferably in a developing country. In this context we refer also to suggestions on the preparatory role that could be played by the Scientific and Technical Subcommittee. We urge the Committee to take decisive action during the current session to organize such a conference. Our delegation will be pleased to support the efforts of the Committee in this regard, in view of the importance and timeliness of such a conference.

Mr. SMITH (United States of America): It is my pleasure to make a few remarks on the accomplishments of the Scientific and Technical Subcommittee, which met in February. The Subcommittee's session was productive, covering a broad spectrum of international space activities and issues. My delegation was grateful for the opportunity to hear other delegations highlight their accomplishments in space in the past year. We also appreciated the opportunity to review for the Subcommittee some of our key activities.

The Subcommittee also addressed such specific scientific and technical issues as international cooperation in the use of remote-sensing satellites, orbital debris, and the safe use of nuclear power sources in outer space. Let me briefly outline my delegation's views on these important matters.

Regarding international cooperation in the use of remote-sensing satellites, my delegation commends the work of the United Nations Expert on

(Mr. Smith, United States)

Space Applications, Mr. Abiodun, in carrying out the United Nations Programme on Space Applications with such laudable success. We look forward to continuing our support of the Programme's efforts to bring the benefits of Earth-observing satellites to users throughout the world, especially in developing countries.

As members know, my delegation joined consensus in the Subcommittee on the recommendation that this Committee take up the question of adding orbital debris to the agenda of the Scientific and Technical Subcommittee. The United States is now prepared to see the subject placed on the agenda of that Subcommittee, provided that the agenda item is appropriately focused on the research being done on the debris environment. We look forward to working with other delegations and with the Committee Chairman on an appropriate formulation of the agenda item, and on accompanying report language to make the intent of the Committee clear on what this item is and what it is not.

On the subject of the safe use of nuclear power sources in outer space, space nuclear power continues to be of interest to the United States, particularly for space missions where other power sources would not be enabling. During the Subcommittee's 1993 session, a number of delegations expressed a continuing interest in this topic and in the prospective revision of the Principles Relevant to the Safe Use of Nuclear Power Sources in Outer Space. For its part, the United States is currently reviewing its position on those Principles; we expect that this review will be completed before the 1994 session of the Scientific and Technical Subcommittee. With these considerations in mind, we believe that the topic of nuclear power sources clearly should remain on the agenda for next year's sessions of the Scientific and Technical Subcommittee and the Legal Subcommittee.

(Mr. Smith, United States)

Finally, we note the differing views expressed by various delegations concerning the possibility of holding a third United Nations Conference on the Exploration and Peaceful Uses of Outer Space. In our opinion, there are a number of issues that need to be resolved before the Subcommittee would be in a position to arrive at a conclusive judgement on the merits of the idea. For example, we would need to consider the financial implications and the anticipated outcomes of such a conference. We should also consider a range of alternatives for achieving our agreed objectives: options that might be examined include an intensification of work within the Committee on the Peaceful Uses of Outer Space (COPUOS), a series of well-focused workshops, and a regionally based, as opposed to a global, approach, along the lines of the highly successful Second Space Conference of the Americas, held in Santiago, Chile, earlier this year.

Ms. DAPUL (Philippines): Particularly at this juncture, when the Office for Outer Space Affairs is to be relocated in Vienna, the Philippine delegation would like to place on record its commendation and appreciation for the outstanding work being carried out by the Office for Outer Space Affairs, under the leadership of Mr. Jasentuliyana. His instructive report yesterday gives an indication of how his Office, assisted by dedicated, able and very professional staff, fulfils the mandate entrusted to it by the General Assembly despite meagre resources. The role of the Office for Outer Space Affairs has indeed been crucial in focusing on the developmental component in the United Nations activities relating to outer space, and thus preventing international space activities from becoming the sole preserve of spacefaring nations. We see in the efforts of the Office a genuine understanding and advocacy of the needs of developing countries.

(Ms. Dapul, Philippines)

The Philippines, in particular, cites the achievements of the United Nations Programme on Space Applications, headed by Mr. Abiodun, and we thank him for his comprehensive report. Through patient, painstaking efforts, and without publicity, the Programme has over the years incrementally aided Governments, including mine, in raising the priority of space applications for developmental planning. The Programme, through fellowships, workshops, seminars, conferences and technical advisory services, is acting as a catalyst for the process of building the necessary infrastructures for space applications in developing countries. We are pleased to note the number of publications issued as part of the International Space Information Service.

The initiative to compile technical papers emanating from various seminars and workshops is especially welcomed, since resource constraints prevent my Government from sending participants to many of these technical gatherings. The wide dissemination of the products of technical seminars and workshops will have the desired multiplier effect, which we hope will be an ingredient in accelerating our economy's engine, as envisioned in our medium-term plan.

My delegation is appreciative of the report on the role of the Committee on the Peaceful Uses of Outer Space (COPUOS) in implementing the recommendations of the United Nations Conference on Environment and Development. As an archipelagic country which relies on remote sensing technology, the Philippines seeks cooperation, either bilaterally or multilaterally, in gaining competence in the application of remote sensing

(Ms. Dapul, Philippines)

technology specifically to the management of marine resources. We hope that through the Committee such cooperation can be forged.

The Philippines looks forward to the establishment of the Asia-Pacific Satellite Communications Conference (ASPCC), which was a direct result of the United Nations Workshop on Space Communications for Development held in Seoul, Republic of Korea, last year. We hope that the issues and problems normally arising from setting up the ASPCC will be resolved soon.

My delegation is pleased that the Scientific and Technical Subcommittee has recommended for special attention at the 1994 session the theme "Space applications for disaster prevention, warning, mitigation and relief". The theme is of particular relevance to the Philippines, given its share of volcanic eruptions, earthquakes, tidal waves and typhoons. The Committee on Space Research (COSPAR) and the International Astronautical Federation (IAF) might therefore wish to consider someone from my country, as we have experience and some expertise with the use of space-based technologies in disaster situations, especially in connection with the Mount Pinatubo eruption.

My delegation sees merit in the Indian proposal to convene the third United Nations Conference on the Exploration and Peaceful Uses of Outer Space in a developing country. We echo the observations made by previous delegations that its objectives must be clear and the preparatory process given careful attention in order to ensure its success. While we are open with respect to the date of the conference, we feel that it should be convened within the next three years. We also agree with the idea to entrust the Working Group of the Whole with its preparation.

(Ms. Dapul, Philippines)

Let me express, in conclusion, the satisfaction of my delegation over the manner in which Ambassador Hohenfellner is presiding over the Committee. We also congratulate Mr. Telles Ribeiro on his assumption of the post of Rapporteur.

Mr. VELLOSO (Brazil): Initially, my delegation wishes to thank the Expert on Space Applications, Mr. Abiodon, for his very comprehensive and educated presentation on the ongoing and future activities of the Programme on Space Applications. Although having all the characteristics of an intermission year, particularly after all the efforts deployed by the membership of the Committee in reaching an agreement on the Set of Principles Relevant to the Use of Nuclear Power Sources in Outer Space, we consider 1993 as a very productive year, in view of the outcome of the deliberations in the Committee's Subcommittees. This is even more evident in the case of the Scientific and Technical Subcommittee, which held a very fruitful session, with progress achieved on almost all of its agenda items.

As to the uses of nuclear power sources in outer space, my delegation took note with interest of the working papers submitted by the delegations of the United Kingdom and the Russian Federation on safety aspects regarding nuclear power sources. We look forward to continuing the exchange of views on innovative approaches to the question of the safety of nuclear power sources. Nevertheless, we fully subscribe to the view that the revision of the Principles, based upon new concepts, would be warranted only if it results in an increase in the level of environmental protection.

In the field of space and Earth environment, we regret that we were not able to reach a consensus during the last session on the inclusion of an item on space debris in the Subcommittee's agenda. We hope that a deferral of this

(Mr. Velloso, Brazil)

question will be conducive to a greater awareness of the problem, thus enabling delegations to have the necessary consultations.

My delegation is confident that, with flexibility on the part of all delegations, a positive decision might be reached during this session of COPUOS, allowing the international community to address this important question.

In relation to the United Nations Programme on Space Applications and to the implementation of the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space, the Working Group of the Whole dealt with the crucial question of availability of resources. This question was also tackled during the forty-seventh session of the General Assembly, at which the Chairman of the Special Political Committee addressed a letter to the Fifth Committee expressing concern over the meagre and inadequate level of funding for the United Nations Programme on Space Applications. As 1993 is a budget year, we hope that our representatives on the Fifth Committee will be able to address this situation.

Although plagued by lack of funds the Programme on Space Applications was able to carry out its work programme. Among the various commendable activities, we wish to highlight the support provided by the Programme to the Second Space Conference of the Americas. This action-oriented Conference constitutes a good example of regional approach to international cooperation on a non-discriminatory and equitable basis.

(Mr. Velloso, Brazil)

Allow me to take this opportunity to elaborate in greater detail on the cooperation projects presented by Brazil at that Conference. The international cooperation activities of the National Institute of Space Research (INPE) are not new, since the Institute is one of the most active partners in the long-term fellowship programme of the United Nations in the area of remote sensing. Taking stock of its current experience in this domain, INPE has proposed that the number of scholarships for the remote-sensing training course be increased for Latin American students.

Three other projects were also proposed, one of which is aimed at studying El Niño, a meteorological phenomenon with important social and economic consequences for the Americas.

Brazil has also proposed continuing, with the support of the United Nations Environment Programme, the pan-Amazonia project, aimed at monitoring the South American tropical forests using the Landsat satellite.

The most innovative project consists in enabling access, free of charge, by the countries of the region to the environmental data relayed by the first Brazilian satellite, SCD-1.

My delegation took due note of the suggestions made by the Expert on Space Applications on ways to proceed with the Centre for Space Science and Technology Education for Latin America and the Caribbean Region, which would be the first Centre to be established of a proposed network that would comprise Centres in Asia and in Africa. We are confident that the Secretariat will devote the best of its abilities to ensuring the successful implementation of the Centre for Latin America and the Caribbean.

Mr. YAMAMOTO (Japan): I am speaking more in connection with the statement made by the Expert on Space Applications, Mr. Abiodun; and this does not necessarily refer to the agenda items under discussion.

First of all, I wish to thank Mr. Abiodun very much for his comprehensive and precise remarks. In general, Japan welcomes and highly appreciates his great initiatives both of universal and regional scope.

I listened attentively to Mr. Abiodun's explanation on the idea of establishing a new framework, the Asia-Pacific satellite communications conference - referred to as APSC. Although I am not in a position to pre-judge Japan's future course of action or the final position it will take, I wish to place on record that my authorities in Tokyo have previously registered certain doubts and reservations about this proposal, and have indeed communicated to that effect with the initiating countries.

So I believe that the most appropriate conclusion can be reached through further consultations.

The meeting rose at 12.15 p.m.